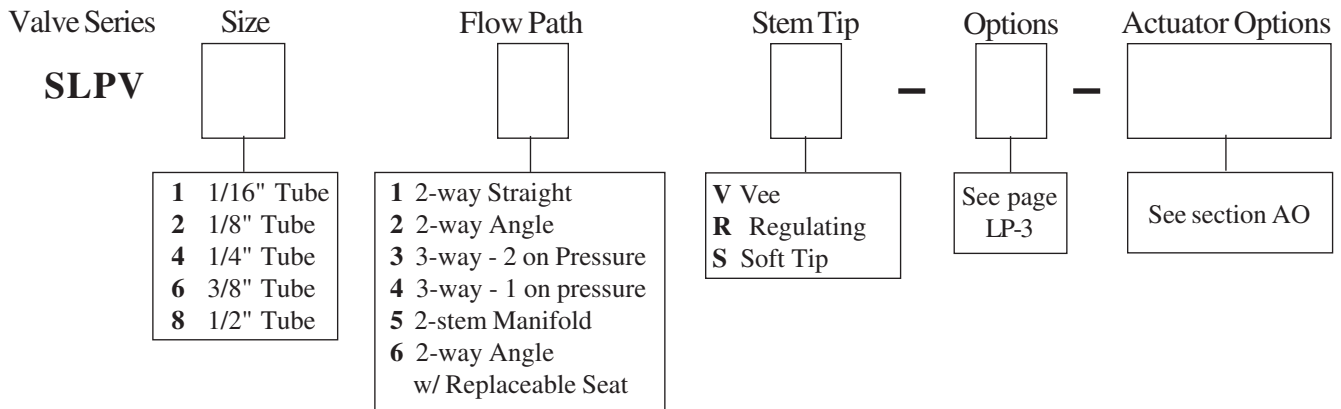


ORDERING INFORMATION & REPLACEMENT PARTS



Examples:

SLPV42V specifies a 2-way angle valve for 1/4" tube with a Vee stem

SLPV81R-PM specifies a 2-way straight valve for 1/2" tube with regulating stem and panel-mount packing gland option

Replacement Parts

BuTech offers replacement parts in a variety of packages so you can purchase just the parts you need.

Replacement Stem Kit contains just the stem

Replacement Packing Kit contains all soft packing rings

Repair Kits contain stem, stem sleeve, stem nuts and washers, packings and packing washers (replacement seat where applicable)

Valve Series	Repair Kits		Replacement Stem	Replacement Packings	Replacement Valve Body
	All others	Replaceable Seat			
SLPV1	RK-SLPV1*	RK-SLPV16*	LPS1*	LPPK1	SLPV1+
SLPV2	RK-SLPV2*	RK-SLPV26*	LPS2*	LPPK2	SLPV2+
SLPV4	RK-SLPV4*	RK-SLPV46*	LPS4*	LPPK4	SLPV4+
SLPV6	RK-SLPV6*	RK-SLPV66*	LPS6*	LPPK6	SLPV6+
SLPV8	RK-SLPV8*	RK-SLPV86*	LPS8*	LPPK8	SLPV8+

*Complete catalog number by adding the following:

V, R or S for stem type

Suffix for special packing materials (see page LP-3)
(ex. **-GR** for Grafoil packings)

Suffix for special materials
(ex. **-HC** for Hastelloy)

-LT or **-HT** for cryogenic or high-temperature service

-WAO for a valve fitted with an actuator

+Complete catalog number by adding the flow path designator:

- 1 2-way straight
- 2 2-way angle
- 3 3-way, 2 connections on pressure
- 4 3-way, 1 connection on pressure
- 5 2-stem manifold
- 6 2-way angle with replaceable seat

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)

NEEDLE VALVE OPTIONS

Packing and Stem Materials

- GR Grafoil packings for service to 800°F (426°C)
- TFE Virgin PTFE packing for service to 450°F (232°C)
- 316WP 316 wetted parts
- STS Stellite tipped stem
- SRS Stellite replaceable seat (Replaceable seat valves only)

Handle Options

- PH Round plastic handle in place of aluminum
- SS Stainless steel handle in place of aluminum
- EXT_ Handle extended above valve body, specify number of inches of extra height desired (Ex: **EXT6** is a 6" extension)

Security Options

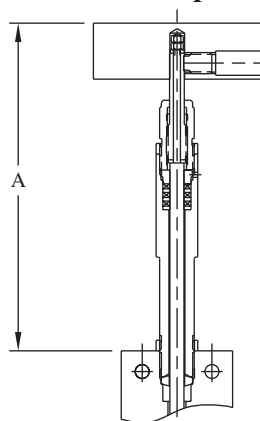
- HLD Handle locking device (prevents unauthorized opening/closing of valve)
- SLD Stem locking device (prevents stem from turning due to vibration)

Extreme Service

- O2 Cleaned for oxygen service
- HT Extended stuffing box, graphite packing, and materials for high-temperature service to 1200°F (648°C)
- HTF Finned extended stuffing box, graphite packing, and materials for high-temperature service to 1200°F (648°C)
- LT Extended stuffing box, PTFE packing, and materials for cryogenic service to -423°F (-251°C)
- LTF Finned extended stuffing box, PTFE packing, and materials for cryogenic service to -423°F (-251°C)

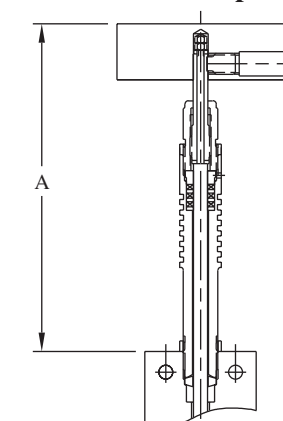
Valve Model	A
SLPV1	N/A
SLPV2	N/A
SLPV4	5.82" (147.8)
SLPV6	5.82" (147.8)
SLPV8	7.22" (183.4)

-HT or -LT Options



Cylindrical Bonnet

-HTF or -LTF Options

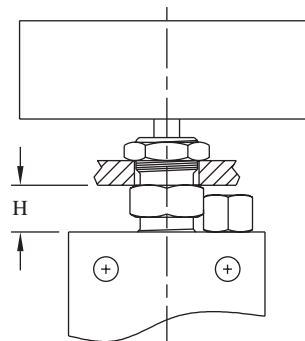


Finned Bonnet

Panel Mount

- PM Panel-mount packing gland

Valve Model	Panel Hole Size	Max Panel Thickness	H
SLPV1	0.47" (11.9)	0.25" (6.4)	0.41" (10.4)
SLPV2	0.47" (11.9)	0.25" (6.4)	0.41" (10.4)
SLPV4	0.66" (16.8)	0.25" (6.4)	0.54" (13.7)
SLPV6	0.66" (16.8)	0.25" (6.4)	0.54" (13.7)
SLPV8	0.78" (19.8)	0.44" (11.2)	0.50" (12.7)



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)

NEEDLE VALVES FOR 15,000 PSI (1030 BAR)

1/16" L/P TUBE, SINGLE FERRULE COMPRESSION

2-way Straight

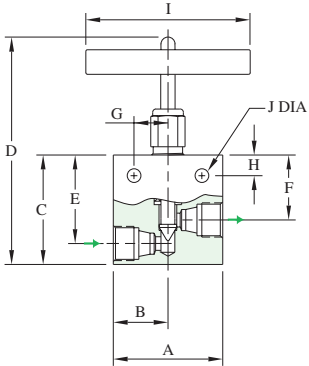


Figure 1

2-way Angle

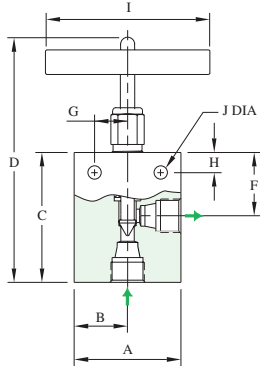


Figure 2

3-way Two on Pressure

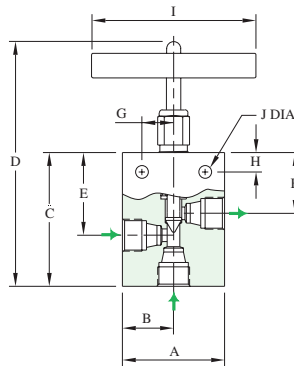


Figure 3

3-way One on Pressure

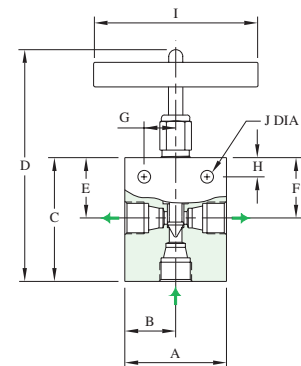


Figure 4

Catalog Number	Stem Style	Connection	A	B	C	D	E	F	G	H	I	J	K	L	Thk.	Fig
SLPV11V SLPV11R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	1.38" (35.1)	3.82" (97.0)	1.06" (26.9)	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	---	---	0.62" (15.7)	1
SLPV12V SLPV12R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	1.56" (39.6)	4.00" (101.6)	---	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	---	---	0.62" (15.7)	2
SLPV13V SLPV13R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	1.69" (42.9)	4.13" (104.9)	1.06" (26.9)	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	---	---	0.62" (15.7)	3
SLPV14V SLPV14R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	1.56" (39.6)	4.00" (101.6)	0.81" (20.6)	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	---	---	0.62" (15.7)	4
SLPV15V SLPV15R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	2.25" (57.2)	7.13" (181.1)	1.12" (28.4)	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	---	---	0.62" (15.7)	5
SLPV16V SLPV16R	Vee Reg	1/16" L/P Tube	1.50" (38.1)	0.75" (19.1)	1.69" (42.9)	4.13" (104.9)	---	0.81" (20.6)	0.50" (12.7)	0.31" (7.9)	2.37" (60.2)	0.17" (4.3)	0.50" (12.7)	0.63" (16.0)	0.62" (15.7)	6
SLPMV16V	Meter	1/16" L/P Tube	1.38" (35.1)	0.87" (22.1)	1.56" (39.6)	5.40" (137.2)	---	0.94" (23.9)	0.19" (4.8)	0.44" (11.2)	2.37" (60.2)	0.16" (4.1)	0.56" (14.2)	0.72" (18.3)	0.75" (19.1)	7
SLPMMV16V	Micro-Meter	1/16" L/P Tube	1.38" (35.1)	0.87" (22.1)	1.56" (39.6)	5.42" (137.7)	---	0.94" (23.9)	0.19" (4.8)	0.44" (11.2)	2.37" (60.2)	0.16" (4.1)	0.56" (14.2)	0.72" (18.3)	0.75" (19.1)	8

See page LP-1 for orifice and Cv

2-stem Manifold

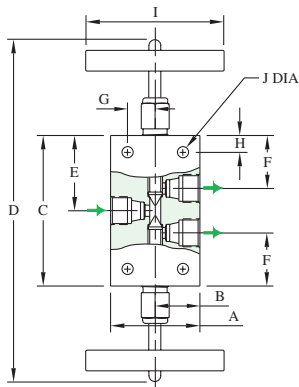


Figure 5

Replaceable Seat

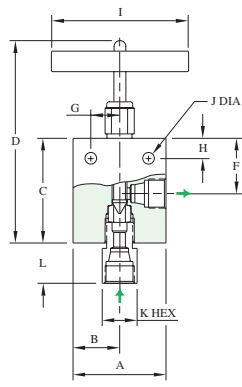


Figure 6

Metering

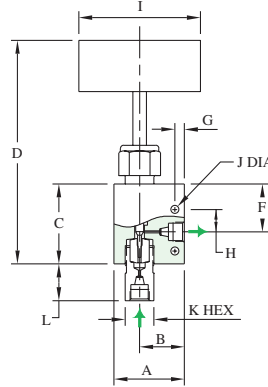


Figure 7

Micro-Metering

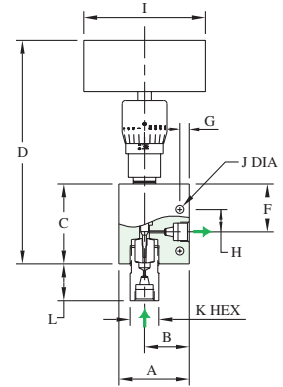


Figure 8

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)

NEEDLE VALVES FOR 15,000 PSI (1030 BAR)

1/8" L/P TUBE, SINGLE FERRULE COMPRESSION

2-way Straight

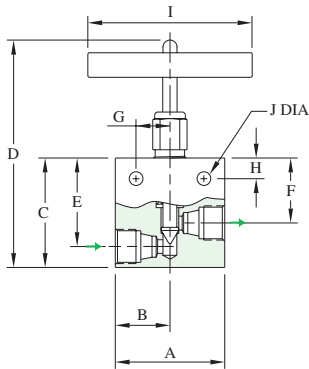


Figure 1

2-way Angle

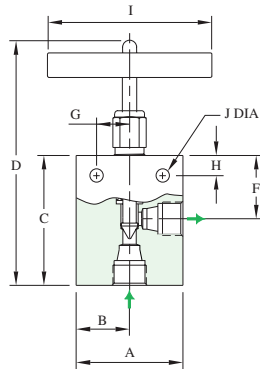


Figure 2

3-way Two on Pressure

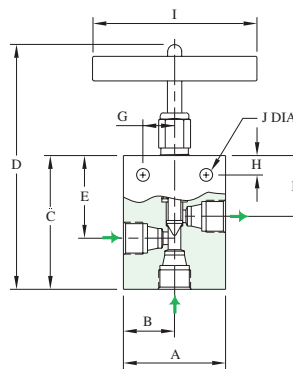


Figure 3

3-way One on Pressure

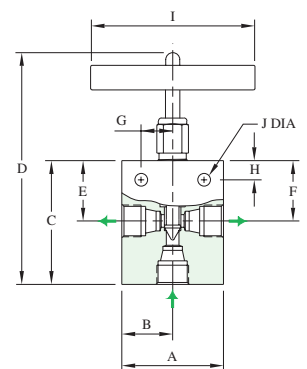


Figure 4

Catalog Number	Stem Style	Connection	A	B	C	D	E	F	G	H	I	J	K	L	Thk.	Fig
SLPV21V	Vee	1/8" L/P	1.50"	0.75"	1.38"	3.82"	1.06"	0.81"	0.50"	0.31"	2.37"	0.17"	---	---	0.62"	1
SLPV21R	Reg	Tube	(38.1)	(19.1)	(35.1)	(97.0)	(26.9)	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	---	---	(15.7)	
SLPV22V	Vee	1/8" L/P	1.50"	0.75"	1.56"	4.00"	---	0.81"	0.50"	0.31"	2.37"	0.17"	---	---	0.62"	2
SLPV22R	Reg	Tube	(38.1)	(19.1)	(39.6)	(101.6)	---	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	---	---	(15.7)	
SLPV23V	Vee	1/8" L/P	1.50"	0.75"	1.69"	4.13"	1.06"	0.81"	0.50"	0.31"	2.37"	0.17"	---	---	0.62"	3
SLPV23R	Reg	Tube	(38.1)	(19.1)	(42.9)	(104.9)	(26.9)	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	---	---	(15.7)	
SLPV24V	Vee	1/8" L/P	1.50"	0.75"	1.56"	4.00"	0.81"	0.81"	0.50"	0.31"	2.37"	0.17"	---	---	0.62"	4
SLPV24R	Reg	Tube	(38.1)	(19.1)	(39.6)	(101.6)	(20.6)	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	---	---	(15.7)	
SLPV25V	Vee	1/8" L/P	1.50"	0.75"	2.25"	7.13"	1.12"	0.81"	0.50"	0.31"	2.37"	0.17"	---	---	0.62"	5
SLPV25R	Reg	Tube	(38.1)	(19.1)	(57.2)	(181.1)	(28.4)	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	---	---	(15.7)	
SLPV26V	Vee	1/8" L/P	1.50"	0.75"	1.69"	4.13"	---	0.81"	0.50"	0.31"	2.37"	0.17"	0.50"	0.63"	0.62"	6
SLPV26R	Reg	Tube	(38.1)	(19.1)	(42.9)	(104.9)	---	(20.6)	(12.7)	(7.9)	(60.2)	(4.3)	(12.7)	(16.0)	(15.7)	
SLPMV26V	Meter	1/8" L/P	1.38"	0.87"	1.56"	5.40"	---	0.94"	0.19"	0.44"	2.37"	0.16"	0.56"	0.72"	0.75"	7
SLPMV26R	Reg	Tube	(35.1)	(22.1)	(39.6)	(137.2)	---	(23.9)	(4.8)	(11.2)	(60.2)	(4.1)	(14.2)	(18.3)	(19.1)	
SLPMMV26V	Micro-Meter	1/8" L/P	1.38"	0.87"	1.56"	5.42"	---	0.94"	0.19"	0.44"	2.37"	0.16"	0.56"	0.72"	0.75"	8
SLPMMV26R	Reg	Tube	(35.1)	(22.1)	(39.6)	(137.7)	---	(23.9)	(4.8)	(11.2)	(60.2)	(4.1)	(14.2)	(18.3)	(19.1)	

See page LP-1 for orifice and Cv

2-stem Manifold

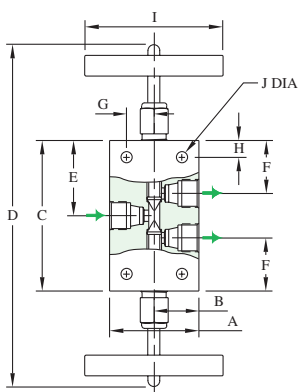


Figure 5

Replaceable Seat

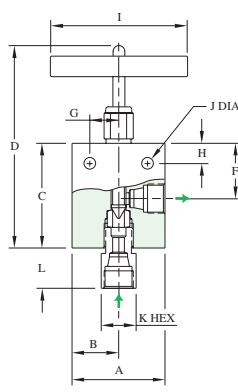


Figure 6

Metering

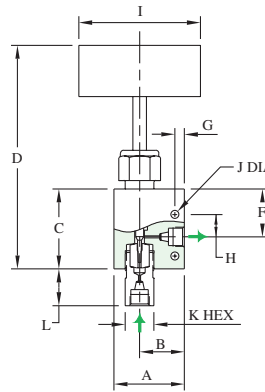


Figure 7

Micro-Metering

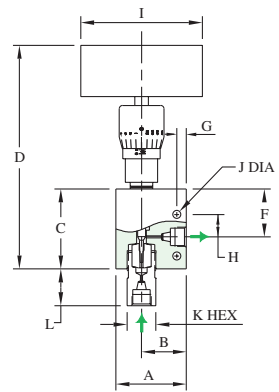


Figure 8

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)



NEEDLE VALVES FOR 11,500 PSI (790 BAR)

1/4" SL/P TUBE, SINGLE FERRULE COMPRESSION

2-way Straight

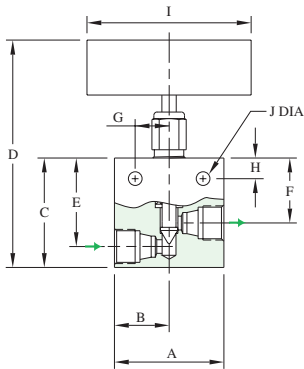


Figure 1

2-way Angle

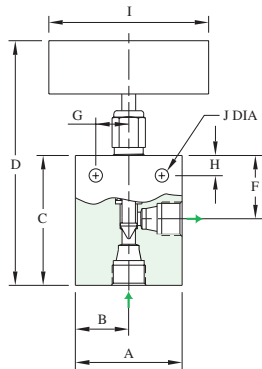


Figure 2

3-way Two on Pressure

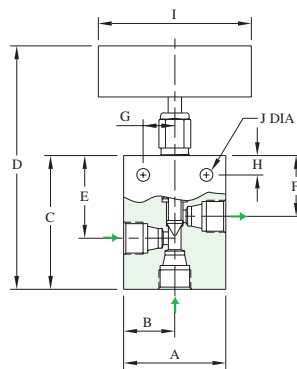


Figure 3

3-way One on Pressure

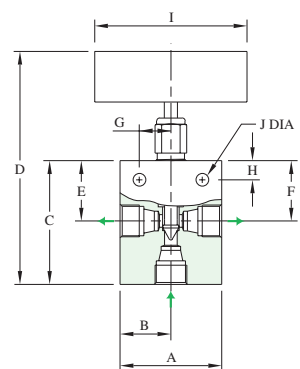


Figure 4

Catalog Number	Stem Style	Connection	A	B	C	D	E	F	G	H	I	J	K	L	Thk.	Fig
SLPV41V	Vee	1/4" SL/P	2.00"	1.00"	2.00"	4.50"	1.62"	1.19"	0.62"	0.38"	3.00"	0.25"	---	---	0.75"	1
SLPV41R	Reg	Tube	(50.8)	(25.4)	(50.8)	(114.3)	(41.1)	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	---	---	(19.1)	
SLPV42V	Vee	1/4" SL/P	2.00"	1.00"	2.44"	4.94"	---	1.19"	0.62"	0.38"	3.00"	0.25"	---	---	0.75"	2
SLPV42R	Reg	Tube	(50.8)	(25.4)	(62.0)	(125.5)	---	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	---	---	(19.1)	
SLPV43V	Vee	1/4" SL/P	2.00"	1.00"	2.62"	5.12"	1.62"	1.19"	0.62"	0.38"	3.00"	0.25"	---	---	0.75"	3
SLPV43R	Reg	Tube	(50.8)	(25.4)	(66.5)	(130.0)	(41.1)	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	---	---	(19.1)	
SLPV44V	Vee	1/4" SL/P	2.00"	1.00"	2.44"	4.94"	1.19"	1.19"	0.62"	0.38"	3.00"	0.25"	---	---	0.75"	4
SLPV44R	Reg	Tube	(50.8)	(25.4)	(62.0)	(125.5)	(30.2)	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	---	---	(19.1)	
SLPV45V	Vee	1/4" SL/P	2.00"	1.00"	3.38"	8.38"	1.68"	1.19"	0.62"	0.38"	3.00"	0.25"	---	---	0.75"	5
SLPV45R	Reg	Tube	(50.8)	(25.4)	(85.9)	(212.9)	(42.7)	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	---	---	(19.1)	
SLPV46V	Vee	1/4" SL/P	2.00"	1.00"	2.25"	4.75"	---	1.19"	0.62"	0.38"	3.00"	0.25"	0.50"	0.63"	0.75"	6
SLPV46R	Reg	Tube	(50.8)	(25.4)	(57.2)	(120.7)	---	(30.2)	(15.7)	(9.7)	(76.2)	(6.4)	(12.7)	(16.0)	(19.1)	
SLPMV46V	Meter	1/4" SL/P	2.50"	1.25"	2.62"	6.69"	---	1.31"	0.69"	0.38"	3.00"	0.25"	0.75"	1.03"	1.00"	7
	Tube		(63.5)	(31.8)	(66.5)	(169.9)	---	(33.3)	(17.5)	(9.7)	(76.2)	(6.4)	(19.1)	(26.2)	(25.4)	
SLPMMV46V	Micro-Meter	1/4" SL/P	2.50"	1.25"	2.62"	7.33"	---	1.31"	0.69"	0.38"	2.35"	0.25"	0.75"	1.03"	1.00"	8
	Tube		(63.5)	(31.8)	(66.5)	(186.2)	---	(33.3)	(17.5)	(9.7)	(59.7)	(6.4)	(19.1)	(26.2)	(25.4)	

See page LP-1 for orifice and Cv

2-stem Manifold

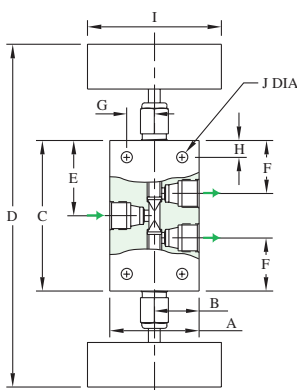


Figure 5

Replaceable Seat

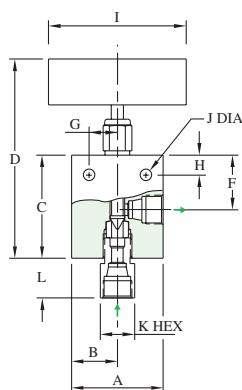


Figure 6

Metering

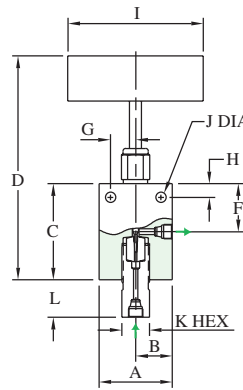


Figure 7

Micro-Metering

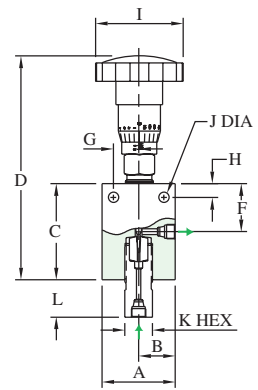


Figure 8

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)

NEEDLE VALVES FOR 7,500 PSI (520 BAR)

3/8" SL/P TUBE, SINGLE FERRULE COMPRESSION

2-way Straight

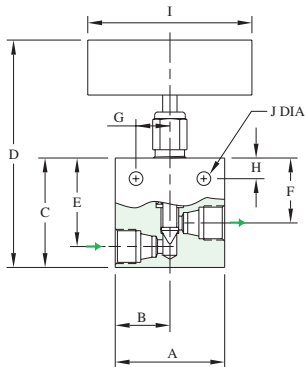


Figure 1

2-way Angle

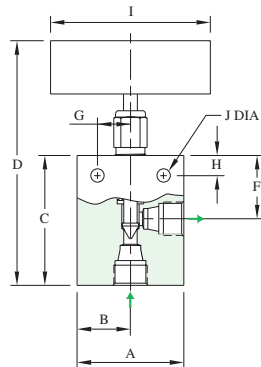


Figure 2

3-way Two on Pressure

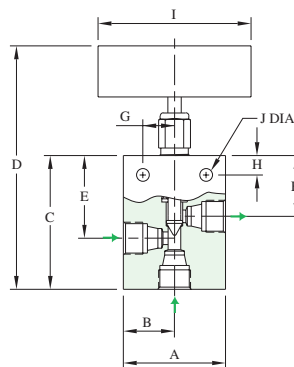


Figure 3

3-way One on Pressure

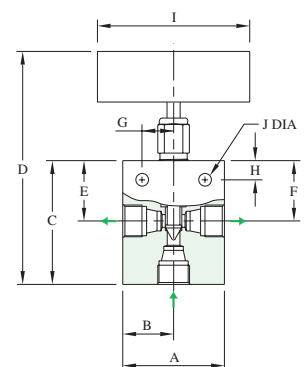


Figure 4

Catalog Number	Stem Style	Connection	A	B	C	D	E	F	G	H	I	J	K	L	Thk.	Fig
SLPV61V SLPV61R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	2.00" (50.8)	4.50" (114.3)	1.62" (41.1)	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	---	---	0.75" (19.1)	1
SLPV62V SLPV62R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	2.44" (62.0)	4.94" (125.5)	---	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	---	---	0.75" (19.1)	2
SLPV63V SLPV63R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	2.62" (66.5)	5.12" (130.0)	1.62" (41.1)	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	---	---	0.75" (19.1)	3
SLPV64V SLPV64R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	2.44" (62.0)	4.94" (125.5)	1.19" (30.2)	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	---	---	0.75" (19.1)	4
SLPV65V SLPV65R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	3.38" (85.9)	8.38" (212.9)	1.68" (42.7)	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	---	---	0.75" (19.1)	5
SLPV66V SLPV66R	Vee Reg	3/8" SL/P Tube	2.00" (50.8)	1.00" (25.4)	2.25" (57.2)	4.75" (120.7)	---	1.19" (30.2)	0.62" (15.7)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	0.50" (12.7)	0.63" (16.0)	0.75" (19.1)	6
SLPMV66V	Meter	3/8" SL/P Tube	2.50" (63.5)	1.25" (31.8)	2.62" (66.5)	6.69" (169.9)	---	1.31" (33.3)	0.69" (17.5)	0.38" (9.7)	3.00" (76.2)	0.25" (6.4)	0.75" (19.1)	1.03" (26.2)	1.00" (25.4)	7
SLPMMV66V	Micro-Meter	3/8" SL/P Tube	2.50" (63.5)	1.25" (31.8)	2.62" (66.5)	7.33" (186.2)	---	1.31" (33.3)	0.69" (17.5)	0.38" (9.7)	2.35" (59.7)	0.25" (6.4)	0.75" (19.1)	1.03" (26.2)	1.00" (25.4)	8

See page LP-1 for orifice and Cv

2-stem Manifold

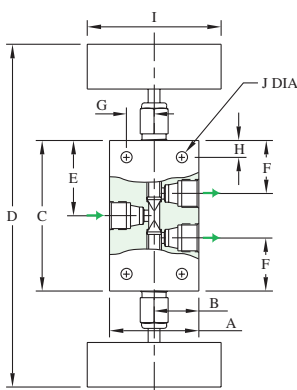


Figure 5

Replaceable Seat

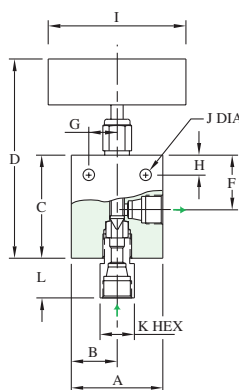


Figure 6

Metering

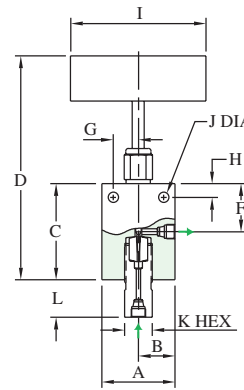


Figure 7

Micro-Metering

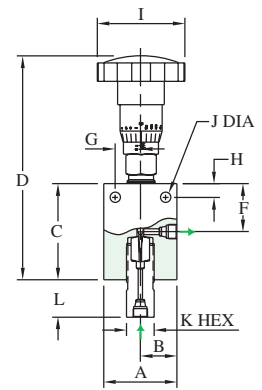


Figure 8

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)



NEEDLE VALVES FOR 5,500 PSI (380 BAR)

1/2" L/P TUBE, SINGLE FERRULE COMPRESSION

2-way Straight

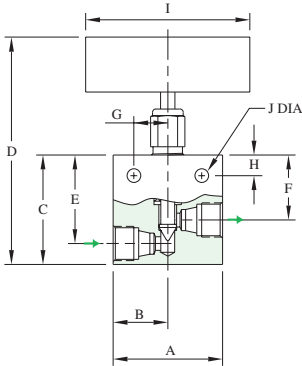


Figure 1

2-way Angle

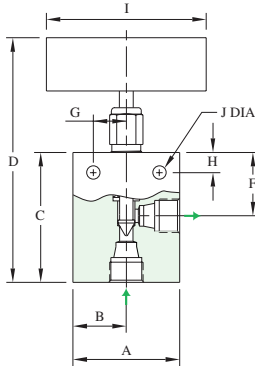


Figure 2

3-way Two on Pressure

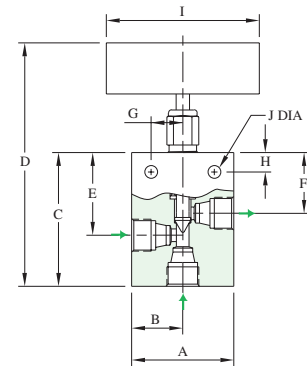


Figure 3

Catalog Number	Stem Style	Connection	A	B	C	D	E	F	G	H	I	J	K	L	Thk.	Fig
SLPV81V	Vee	1/2" L/P	2.50"	1.25"	2.88"	6.32"	2.38"	1.75"	0.69"	0.50"	4.00"	0.34"	---	---	1.00"	1
SLPV81R	Reg	Tube	(63.5)	(31.8)	(73.2)	(160.5)	(60.5)	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	---	---	(25.4)	
SLPV82V	Vee	1/2" L/P	2.50"	1.25"	3.38"	6.82"	---	1.75"	0.69"	0.50"	4.00"	0.34"	---	---	1.00"	2
SLPV82R	Reg	Tube	(63.5)	(31.8)	(85.9)	(173.2)	---	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	---	---	(25.4)	
SLPV83V	Vee	1/2" L/P	2.50"	1.25"	3.62"	7.06"	2.38"	1.75"	0.69"	0.50"	4.00"	0.34"	---	---	1.00"	3
SLPV83R	Reg	Tube	(63.5)	(31.8)	(91.9)	(179.3)	(60.5)	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	---	---	(25.4)	
SLPV84V	Vee	1/2" L/P	2.50"	1.25"	3.38"	6.82"	1.75"	1.75"	0.69"	0.50"	4.00"	0.34"	---	---	1.00"	4
SLPV84R	Reg	Tube	(63.5)	(31.8)	(85.9)	(173.2)	(44.5)	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	---	---	(25.4)	
SLPV85V	Vee	1/2" L/P	2.50"	1.25"	5.12"	12.00"	2.56"	1.75"	0.69"	0.50"	4.00"	0.34"	---	---	1.00"	5
SLPV85R	Reg	Tube	(63.5)	(31.8)	(130.0)	(304.8)	(65.0)	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	---	---	(25.4)	
SLPV86V	Vee	1/2" L/P	2.50"	1.25"	3.25"	7.72"	---	1.75"	0.69"	0.50"	4.00"	0.34"	0.75"	0.63"	1.00"	6
SLPV86R	Reg	Tube	(63.5)	(31.8)	(82.6)	(196.1)	---	(44.5)	(17.5)	(12.7)	(101.6)	(8.6)	(19.1)	(16.0)	(25.4)	

See page LP-1 for orifice and Cv

3-way One on Pressure

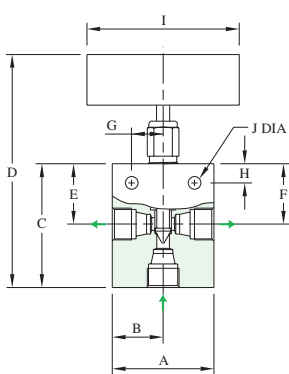


Figure 4

2-stem Manifold

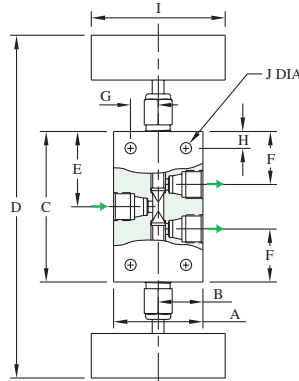


Figure 5

Replaceable Seat

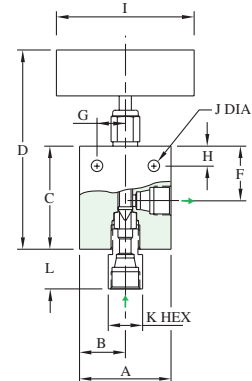


Figure 6

All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)